



9.18 Township of Long Hill

This section presents the jurisdictional annex for the Township of Long Hill.

9.18.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Shayne Daly Director, OEM 908-647-6131 sdaly@longhillpolice.us	Neil Henry Township Administrator 908-647-8000 X224 administrator@longhillnj.gov

9.18.2 Municipal Profile

Long Hill Township is situated in the southernmost section of Morris County and occupies an area of approximately 12 square miles. It is roughly rectangular in shape - spanning 28,000 feet across its widest east-west axis and 15,000 feet along a north-south axis. County Routes 657 and 512 are the main roads in the Township and run east to west. According to the U.S. Census, the 2010 population for the Township of Long Hill was 8,702.

The municipality's boundaries are framed by five adjoining municipalities: Harding and Chatham Townships (also in Morris County) to the north and east; Berkeley Heights Township in Union County to the southeast; and, to the west and south, Warren and Bernards Townships in Somerset County. Much of the northern part of the Township is occupied by the Great Swamp National Wildlife Refuge while the Passaic River and its flood plain meander along Long Hill's western and southern boundaries. These two natural resource areas account for almost half of the Township's area.

Growth/Development Trends

Township of Long Hill did not note any major residential or commercial development, or major infrastructure development planned for the next five years in the municipality.

9.18.3 Natural Hazard Event History Specific to the Municipality

Morris County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.18-1. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
March 12 – April 15, 2010	Severe Storms and Flooding	DR-1897	Yes	1897-NJ41362-Total \$18,490 Severe Storm and Flooding Total of 6 Projects Submitted



Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
December 26-27, 2010	Severe Winter Storm and Snowstorm	DR-1954	Yes	1954-NJ1954-Total \$42,183.45 Severe Snow Storm 1 Project Submitted.
August 26 – September 5, 2011	Hurricane Irene	EM-3332 DR-4021	Yes Yes	4021 – NJ 41362 –Total \$100,782.76 Flooding – Severe Flooding, most main roads closed.
October 29, 2011	Severe Storm	DR-4048	Yes	4048-NJ41362-Total \$194,377.24 Tree/Branches – Snow Storm all main roads blocked Power Outages
October 26 – November 8, 2012	Hurricane Sandy	EM-3354 DR-4086	Yes Yes	4086-NJ41362-Total \$683,093.06 Trees/poles no power for an extended period of time in township

9.18.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Township of Long Hill. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Township of Long Hill.

Table 9.18-2. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Drought	Damage estimate not available	Frequent	27	Medium
Dam Failure	Damage estimate not available	Rare	6	Low
Earthquake	500-year MRP: \$2,720,725 2,500-year MRP: \$48,305,295	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	27	Medium
Flood	1% Annual Chance: \$5,971,436	Frequent	27	Medium
Geological Hazards	Exposed to Class A and Class B: \$31,022,574	Occasional	12	Low
Severe Storm	100-Year MRP: \$2,948,676 500-year MRP: \$16,569,685 Annualized: \$155,106	Frequent	48	High
Winter Storm	1% GBS: \$26,863,291 5% GBS: \$134,316,455	Frequent	54	High
Wildfire	Estimated Value Exposed to Extreme, Very High and High: \$3,037,165	Rare	6	Low
Disease Outbreak	Damage estimate not available	Frequent	36	High
Hazardous Materials	Damage estimate not available	Frequent	36	High
Infestation	Damage estimate not available	Frequent	18	Medium



Notes:

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.
High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 20-30+
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Township of Long Hill.

Table 9.18-3. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Township of Long Hill	168	123	\$2,781,215.89	17	4	96

Source: FEMA Region 2, 2014

(1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2 and are current as of 9/30/2014. Please note the total number of repetitive loss properties includes the severe repetitive loss properties. The number of claims represents claims closed by 9/30/14.

(2) Total building and content losses from the claims file provided by FEMA Region 2.

(3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude.

Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.18-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
Long Hill Community Center	Community Center	X	X	-	-	-
Long Hill Library	Library		X	-	-	-
Long Hill Township Of STP	Wastewater	X	X	1.68	-	-
Township of Long Hill STP	Wastewater	X	X	-	-	-
Stirling Volunteer Fire Company	Fire	X	X	-	-	-
The Long Hill First Aid Squad, Inc.	EMS		X	-	-	-
Township Of Long Hill	DPW	X	X	-	-	-



Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
Township of Long Hill Municipal Building	Secondary EOC		X	-	-	-
Township of Long Hill Municipal Building	Municipal Hall		X	-	-	-
Township of Long Hill Police Department	Police/EOC	X	X	7.6	10.4	480
WKMB 1070	Communication	X	X	-	-	-

Source: HAZUS-MH 2.1

Note (1): HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).

Note (2): In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

NA Not available

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.1

Other Vulnerabilities Identified

The Township of Long Hill has experienced severe flooding as a consequence of heavy rains, usually associated with localized thunderstorms or hurricanes, during the summer and fall months. The low-lying swamps adjacent to the Passaic River, its tributaries, and a system of manmade and natural defiles connecting with the Passaic River increase flood potential in the Stirling area of the Township (FEMA FIS 2010).

9.18.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Township of Long Hill.



Table 9.18-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master / Comprehensive Plan	YES	Local	Planning/Zoning	Master Plan
Capital Improvements Plan	YES	Local	Planning/Zoning	Planning Board
Floodplain Management / Basin Plan	YES	State / Local	NJDEP / OEM with all depts.	Flood Plain Management / Flood Acquisition Plan (with Morris County)
Storm Water Management Plan	YES	Local	Engineer	Construction/Planning
Open Space Plan	YES	Local/State	Township Committee	Open Space Funding Purchases
Stream Corridor Management Plan	NO			
Watershed Management or Protection Plan	NO			
Economic Development Plan	YES	Local	Planning/Zoning	Master Plan
Comprehensive Emergency Management Plan	YES	Local	OEM	Long Hill Basic Plan
Emergency Response Plan	YES	Local/County	Police/Fire/EMS	Long Hill Response Plan
Post-Disaster Recovery Plan	NO			
Transportation Plan	NO			
Strategic Recovery Planning Report	NO			
Other Plans:	NO			
Regulatory Capability				
Building Code	Yes	State & Local	Construction Department	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Zoning	Ordinances
Subdivision Ordinance	Yes	Local	Zoning	Ordinances
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Planning/Zoning	Ordinances
NFIP: Cumulative Substantial Damages	YES	Local/State	OEM/NJSP	FEMA Reimbursement Program
NFIP: Freeboard	Yes	State, Local	Town Hall	Administration
Growth Management Ordinances	NO			
Site Plan Review Requirements	YES	Local/County	Town Hall	Ordinances
Stormwater Management Ordinance	YES	Local/State	Engineering	Ordinances
Municipal Separate Storm Sewer System (MS4)	YES	Local	DPW	Ordinances
Natural Hazard Ordinance	NO			
Post-Disaster Recovery Ordinance	NO			



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Real Estate Disclosure Requirement	YES	State	Division of Consumer Affairs	N.J.A.C. 13:45A-29.1
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	Planning/Zoning	Ordinances

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Township of Long Hill.

Table 9.18-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	YES	Planning Board
Mitigation Planning Committee	YES	County HMP Mitigation Planning Committee
Environmental Board/Commission	YES	Township Environmental Commission
Open Space Board/Committee	YES	Town Hall Open Space Committee
Economic Development Commission/Committee	NO	
Maintenance Programs to Reduce Risk	YES	RISK Management / JII
Mutual Aid Agreements	YES	All Emergency Departments
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	YES	Township Engineering
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	YES	Township Engineering
Planners or engineers with an understanding of natural hazards	YES	Township Engineer/OEM Coordinator
NFIP Floodplain Administrator	Yes	Township Engineer /Zoning Department
Surveyor(s)	YES	Township Engineer
Personnel skilled or trained in GIS and/or HAZUS-MH applications	YES	Township Engineer
Scientist familiar with natural hazards	YES	Township Engineer
Emergency Manager	YES	Coordinator - Emergency Management
Grant Writer(s)	Yes	Township Engineer
Staff with expertise or training in benefit/cost analysis	YES	Various Department Heads
Professionals trained in conducting damage assessments	YES	CERT Team



Fiscal Capability

The table below summarizes financial resources available to the Township of Long Hill.

Table 9.18-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG, CDBG-DR)	Don't Know
Capital Improvements Project Funding	YES
Authority to Levy Taxes for specific purposes	YES
User fees for water, sewer, gas, or electric service	YES
Impact Fees for homebuyers or developers of new development/homes	NO
Storm Water Utility Fee	NO – Management Permit
Incur debt through general obligation bonds	YES
Incur debt through special tax bonds	YES
Incur debt through private activity bonds	NO
Withhold public expenditures in hazard-prone areas	YES
Other Federal or State Funding Programs	YES
Open Space Acquisition Funding Programs	YES – Morris County Flood Mitigation Program (acquisitions)
Other	NO

Community Classifications

The table below summarizes classifications for community program available to the Township of Long Hill.

Table 9.18-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No		
Building Code Effectiveness Grading Schedule (BCEGS)	NO		
Public Protection (ISO Fire Protection Classes 1 to 10)	NO		
Storm Ready	NO		
Firewise	NO		
Disaster/Safety Programs in/for Schools	YES		
Organizations with Mitigation Focus (advocacy group, non-government)	NO		
Public Education Program/Outreach (through website, social media)	YES		
Public-Private Partnerships	NO		

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance.



CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

The table below provides an approximate measure of Long Hill's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.18-9. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Fiscal Capability	X – Available Funding		
Community Political Capability		X	
Community Resiliency Capability		X	
Capability to Integrate Mitigation into Municipal Processes and Activities.	X – Available Funding		

National Flood Insurance Program

NFIP Floodplain Administrator

Paul Ferriero – Township Engineer

Flood Vulnerability Summary

Long Hill Township joined the NFIP on 09/21/2001, and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated 05/16/2000. The community's Flood Damage Prevention Ordinance (FDPO), found at Section 143 of the local code, was last updated in 2001.

The Township does not currently maintain a list of flood damaged properties nor a property owner's interest in mitigation projects. No Substantial Damage Estimates were made following Hurricane Sandy. At this time, nine property owners in the Borough are pending acquisition projects.



Resources

The community FDPO identifies the Township Engineer as the local NFIP Floodplain Administrator, currently Paul Ferriero, for which floodplain administration is an auxiliary duty. Paul Ferriero is the sole person responsible for the implementation of the floodplain management program. Duties and responsibilities of the NFIP Administrator are permit review, inspections, damage assessments, and record keeping. Paul Ferriero feels he is adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator. No financial, political, or personnel barriers were identified to inhibit the Township's ability to implement an effective floodplain program. Paul Ferriero is not certified in floodplain management, however attends regular continuing education programs for code enforcement.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The current NFIP Floodplain Administrator has no knowledge of when the last CAV was performed. Paul Ferriero sees no specific need for a CAV at this time.

Regulatory

The communities Flood Damage Prevention Ordinance (FDPO) was last updated in 2001, and is found at Section 143 of the local code. Current ordinances and regulations enforced exceed the minimum requirements set forth by FEMA and the State of New Jersey. The Township of Long Hill does not currently participate in the Community Rating System (CRS) program.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

The Township recently adopted a Master Plan Reexamination in in 2013. The 2013 Master Plan Reexamination identified the following recommendations and considerations related to natural hazard mitigation:

1. Use the Township's knowledge of the historic nature of the severe storms since 1999 to plan for catastrophic events.
2. Do not allow any new construction due to a sewer ban in the flood plain except for that which has the potential to reduce flood damage.
3. Investigate all available federal, state and county funding to buy flood impacted properties.
4. Remove structures from abandoned properties in the flood plain.
5. Continue river de-snagging and maintenance with local, county, and state resources with an anticipated completion in 2015.
6. The Board should investigate whether single family homes should be exempt from critical area setback requirements for both principal and accessory uses and there should be no building in a critical area.



7. Work with the Police Dept. to address flooding in Police Headquarters
8. Continue to provide for a strong Township Emergency Management team

The Township also has a Storm Water Management Plan that was completed in 2006 that includes the following goals and implementation schedule:

1. Reduce flood damage, including damage to life and property;
2. Assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
3. Protect public safety through proper design and operation of storm Water basins

The Township of Long Hill participates in the County's Flood Mitigation Program (FMP) and has an approved Flood Acquisition Plan (FLAP). The Morris County FMP is the first dedicated, county-level flood acquisition program in the State of New Jersey. The FMP allows Morris County to assist municipalities in moving people out of harm's way, lowering municipal costs due to intense flooding episodes, and create natural flood capture and storage areas which protect the remaining homes and businesses. The FMP is funded by the Morris County Open Space tax and provides grant monies for municipalities to purchase flood-prone residential properties. In addition to MATCH funding available for projects with state or federal monies, Morris County has CORE funding in which the County takes the lead grant role, providing up to 75% of the cost of acquisition. To access this CORE funding, a municipality must have a FLAP. The FLAP is a dynamic, essential tool for understanding the unique flood hazards to residential homes within each community. Working closely with the municipality, Morris County creates this detailed, comprehensive analysis of the historic and current flood risks free of charge. A wide array of data is utilized from sources such as: FEMA, National Flood Insurance Program, USACE Flood Studies, USGS stream gage data, topography and soil analysis. All land acquired with MATCH and CORE funding within the FMP is permanently deed-restricted, preserved open space, available for public use as an active or passive recreation area. The acquired land is municipal-owned and managed in perpetuity.

Regulatory and Enforcement

The Township's Land Use Ordinance, Section 143 Floodplain Regulations consider flood hazard risks. The Borough Planning Board uses the advice of Borough professionals and the Emergency Management Coordinator to guide their decisions with respect to natural hazard risk management. The Planning Board requires developers to take additional actions to mitigate flood hazard risk. Long Hill Township has a Floodplain Advisory Committee that reviews applications within the Flood Hazard Area. The zoning code included Section 140 include considerations for stream corridors and stormwater management.

Fiscal

Currently, the municipal/operating budget does not include line items for mitigation projects or activities. The Township does have an Emergency Management budget of approximately \$5,000. The Township also has a Capital Improvement Budget for several mitigation-related improvements including relining critical main line sewer lines in the Township and resurfacing of Township owned roadways.

Education and Outreach

The Township is currently involved with the Morris County Everbridge Program to issue weekly USA on Watch Program to issue important information to our residents including use of generators, gas heaters, emergency supplies etc. These notices are issued to approximately 1100 homes and businesses in our Township.



The Township recently implemented two information programs using the Morris County Everbridge Program. The first is the CAP or Citizen Aware Program, of which a total of 940 residents that have signed up to receive these Emergency Notifications. In addition the Township has the Long Hill Township USA on Watch program which issues weekly notifications to approximately 1199 household and businesses in the Township. These notifications are a combination of both Police and OEM issues.

9.18.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2010 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.

Table 9.18-10. Past Mitigation Initiative Status

Description	Status	Review Comments
Long Hill 1: Engineering study to determine mitigation action including additional storm-water run-off for the following streets: Pleasant Plains Rd, New Vernon Road, Carlton Road County Roads, Main Street, Mercer Street, Valley Road, Poplar Road, Cedar Street, Magnolia Avenue, and Laurel Avenue.	No Progress	Include in 2015 HMP
Long Hill 2: Elevation/additional pumps added to Police Department/EOC at 264 Mercer Street, Sterling.	In Progress	Include in 2015 HMP
Long Hill 3: Engineering study to determine hazard mitigation action item for Fire Department at 321 Somerset Street, Sterling.	No Progress	Discontinue
Long Hill 4: Elevation of three flood prone properties located on Railroad Street and Magnolia Avenue.	In Progress	Include in 2015 HMP
Long Hill 5: Engineering study to determine mitigation action including a flood wall for the DPW at 1223 Valley Road.	No Progress	Discontinue
Long Hill 6: Acquisition/elevation of four repetitive loss properties located on Cedar Avenue and Laurel Avenue.	In Progress	Include in 2015 HMP
Long Hill 7: Acquisition/elevation of three Repetitive Loss properties located on Mercer Street and Passaic Avenue.	In Progress	Include in 2015 HMP
Long Hill 8: Acquisition/elevation of one repetitive loss property located on Skyline Drive.	In Progress	Include in 2015 HMP
Long Hill 9: Acquisition/elevation of one repetitive loss property located on Madison Street.	In Progress	Include in 2015 HMP
Long Hill 10: Develop all-hazards public education and outreach program for hazard mitigation and preparedness	No Progress	Include in 2015 HMP

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The municipality has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- Township renewed stormwater maintenance activities



Proposed Hazard Mitigation Initiatives for the Plan Update

The Township of Long Hill participated in a mitigation action workshop in 2000 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013). In 2010, the Township of Long Hill participated in a second workshop and was provided the results to the risk assessment to further assist with the identification of mitigation actions.

Table 9.18-11 summarizes the comprehensive-range of specific mitigation initiatives the Township of Long Hill would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, fourteen evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High,’ ‘Medium,’ or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.18-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.18-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
LH-1 (old Long Hill-1)	Engineering study to determine mitigation action including additional storm-water run-off for the following streets: Pleasant Plains Rd, New Vernon Road, Carlton Road County Roads, Main Street, Mercer Street, Valley Road, Poplar Road, Cedar Street, Magnolia Avenue, and Laurel Avenue.	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	High – Greater than \$100,000	Federal/State and County Grants	In progress. Still in very early stage of development. Need engineering study to determine what the possible actions are. Long Term Project.	Low	SIP	PR
LH-2 (old Long Hill-2)	Elevation/additional pumps added to Police Department/EOC at 264 Mercer Street, Sterling.	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	Medium - \$10,000 to \$100,000	Federal/State and County Grants	In progress. Will work to secure additional funding; possibly 2015	High	SIP	PP
LH-3 (old Long Hill-4)	Elevation of three flood prone properties located on Railroad Street and Magnolia Avenue	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	Medium - \$10,000 to \$100,000	Federal/State and County Grants	In progress. Need property owners to agree on action plan	Med	SIP	PP



Table 9.18-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
LH-4 (old Long Hill-6)	Acquisition/elevation of two repetitive loss properties located on Cedar Avenue and Laurel Avenue.	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	High – Greater than \$100,000	Federal/State and County Grants	In progress. Almost complete in final stages. Mid-contract in 2015	High	SIP	PP
LH-5 (old Long Hill-7)	Acquisition/elevation of four Repetitive Loss properties located on Mercer Street.	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	High – Greater than \$100,000	Federal/State and County Grants	In progress. Almost complete in final stages. Extend to completion in 2016.	High	SIP	PP
LH-6 (old Long Hill-9)	Acquisition/elevation of one repetitive loss property located on Madison Street.	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	Low < \$10,000.00	Federal/State and County Grants	In progress. Almost complete in final stages. Completion in 2015/2016	High	SIP	PP



Table 9.18-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
LH-7 (old Long Hill-10)	Develop all-hazards public education and outreach program for hazard mitigation and preparedness	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	High – Greater than \$100,000	Federal/State and County Grants	In progress. Early stage, need to develop plan, cost and action.	High	SIP	PP
LH-8	Acquisition/Elevation of 1297 Valley Rd, Stirling NJ 07980.	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	High – Greater than \$100,000	Federal/State and County Grants	In progress. Completion in 2015/2016	High	SIP	PP
LH-9	Acquisition/Elevation of Property at 168 Bungalow Terr. Millington, NJ 07946	Existing	Flooding	3	Township Engineer and County Agencies	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.	High – Greater than \$100,000	Federal/State and County Grants	In progress. Almost complete in final stages. Completion in 2015	High	SIP	PP



Not all acronyms and abbreviations defined below are included in the table.

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
NJDEP	New Jersey Department of Environmental Protection
NJOEM	New Jersey Office of Emergency Management
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued 2015)
SRL	Severe Repetitive Loss Grant Program (discontinued 2015)

Timeline:

Short	1 to 5 years
Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

Costs:

Where actual project costs have been reasonably estimated:

Low	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where actual project costs cannot reasonably be established at this time:

Low	Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
High	Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
High	Project will have an immediate impact on the reduction of risk exposure to life and property.

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:





- *Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.*
- *Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.*
- *Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.*
- *Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.*
- *Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.*
- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities*



Table 9.18-12. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
LH-1 (old Long Hill-1)	Engineering study to determine mitigation action including additional storm-water run-off for the streets in Township	1	1	-1	-1	1	0	-1	-1	1	1	1	0	0	0	2	Low
LH-2 (old Long Hill-2)	Elevation/additional pumps added to Police Department/EOC at 264 Mercer Street, Sterling.	1	1	1	1	0	1	-1	1	1	1	0	1	1	0	9	High
LH-3 (old Long Hill-4)	Elevation of three flood prone properties located on Railroad Street and Magnolia Avenue	1	1	1	1	0	0	-1	0	0	1	0	1	0	0	5	Med
LH-4 (old Long Hill-6)	Acquisition/elevation of two repetitive loss properties located on Cedar Avenue and Laurel Avenue.	1	1	-1	1	0	1	1	1	0	1	0	1	0	0	7	High
LH-5 (old Long Hill-7)	Acquisition/elevation of four Repetitive Loss properties located on Mercer Street.	1	1	-1	1	0	1	1	1	1	1	0	1	0	0	8	High
LH-6 (old Long Hill-9)	Acquisition/elevation of one repetitive loss property located on Madison Street.	1	1	-1	1	0	1	1	1	1	1	0	1	0	0	8	High
LH-7 (old Long Hill-10)	Develop all-hazards public education and outreach program for hazard mitigation and preparedness	1	1	-1	1	0	1	0	1	1	1	0	1	0	0	7	High
LH-8	Acquisition/Elevation of 1297 Valley Rd, Stirling NJ 07980.	1	1	-1	1	0	1	1	1	1	1	0	1	0	0	8	High
LH-9	Acquisition/Elevation of Property at 168 Bungalow Terr. Millington, NJ 07946	1	1	-1	1	0	1	1	1	1	1	0	1	0	0	8	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



9.18.7 Future Needs To Better Understand Risk/Vulnerability

Identify additional officials for CFM designation and renew/revitalize the Long Hill Flood Program.

9.18.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Township of Long Hill that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Township of Long Hill has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.18.9 Additional Comments

None at this time.



Figure 9.18-1. Township of Long Hill Hazard Area Extent and Location Map 1

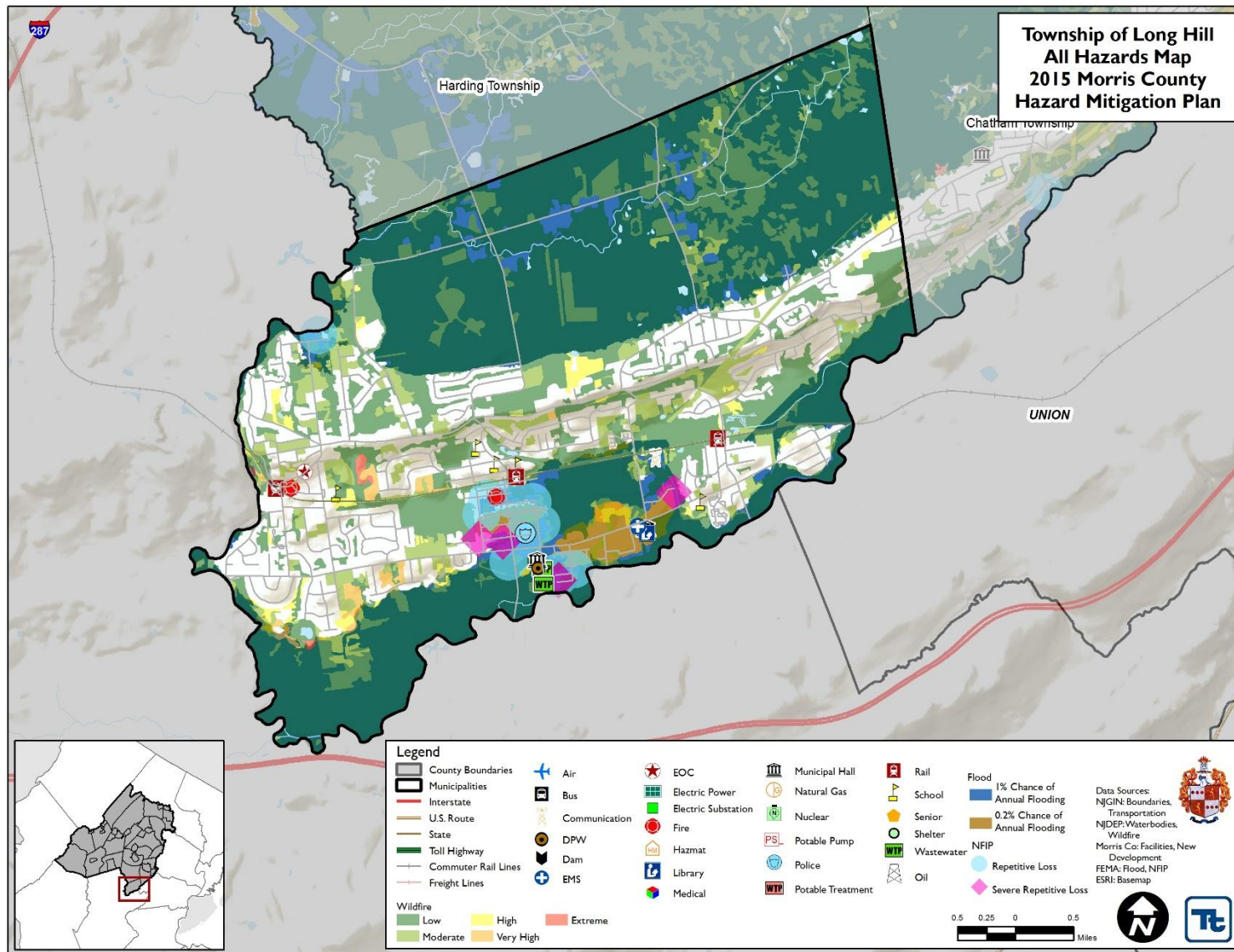
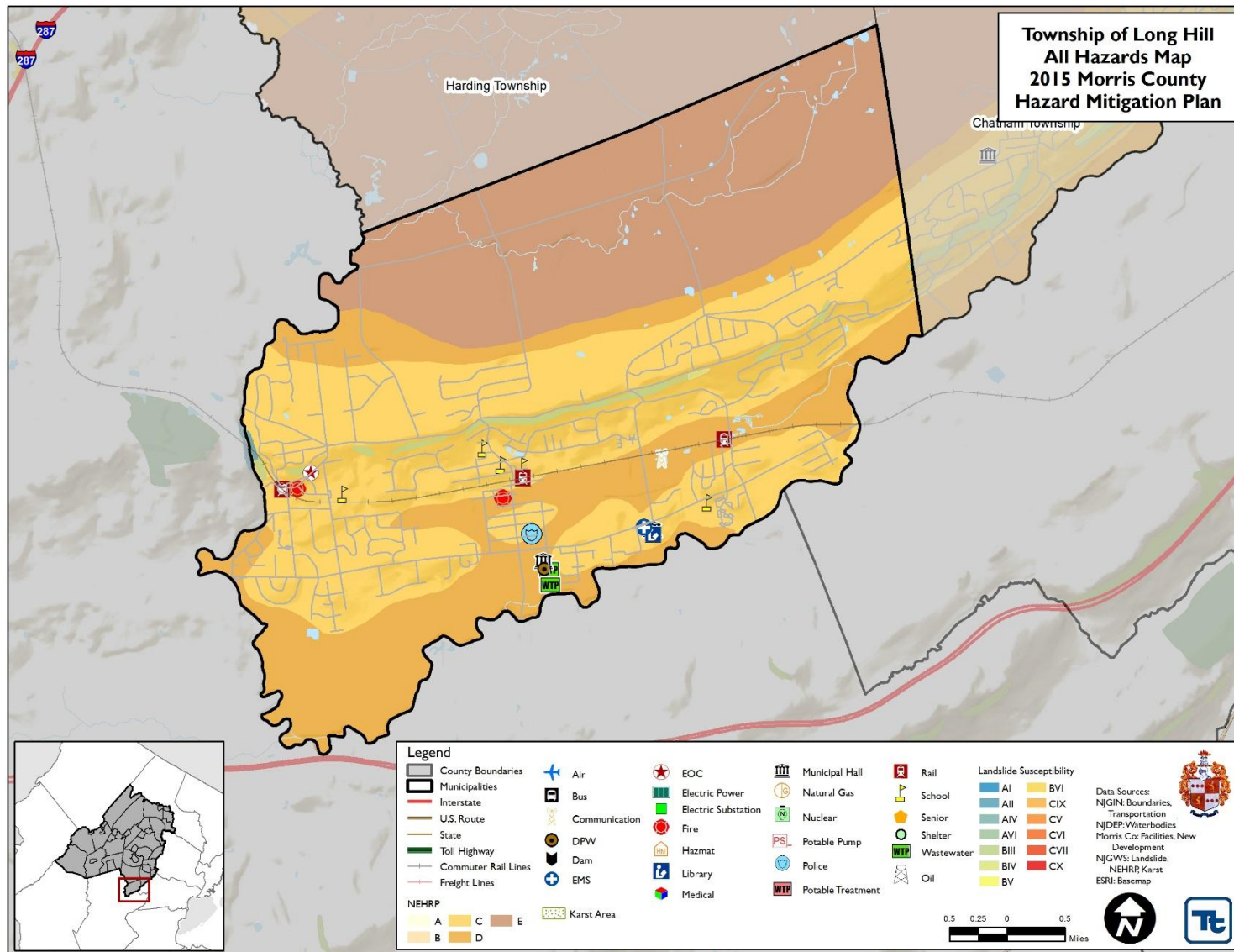




Figure 9.18-2. Township of Long Hill Hazard Area Extent and Location Map 2





Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-1
Mitigation Action/Initiative: Reduce Street Flooding – Various Streets in Township

Assessing the Risk	
Hazard(s) addressed:	Pleasant Plains Rd, New Vernon Rd, Carlton Rd, Main Ave, Mercer St, Valley Rd, Poplar Dr. Cedar St, Magnolia Ave, and Laurel Ave.
Specific problem being mitigated:	Above roadways consistently flood every time we have heavy rains, making roads impassable for vehicles and emergency services vehicles.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Determine causes for flooding
	2. Determine possible solutions
	3. Perform area Environmental Impact study
Action/Project Intended for Implementation	
Description of Selected Action/Project	These streets have been flooding for many years, a solution will have to be developed to quickly remove standing water from these areas and to prevent it from backing up and creating flooding. These solutions must not severely impact other residents and municipalities downstream.
Action/Project Category	Flooding
Goals/Objectives Met	G-3 – Reduce future threat of flooding to these areas.
Applies to existing, future, or not applicable	The threat of flooding will apply to existing and future flooding conditions.
Benefits (losses avoided)	Increased public safety for both residents and motorist. Reduced losses as a result of flooding. Reduced health hazards due to contaminated water.
Estimated Cost	High – Greater than \$100,000
Priority*	0 – Neutral
Plan for Implementation	
Responsible Organization	Township Engineer and County Agencies
Local Planning Mechanism	Need to coordinate planning with state and county agencies to develop solutions
Potential Funding Sources	Federal/State and County Grants
Timeline for Completion	OG – On Going Program
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/08/2015 Progress on Action/Project: Review process not started, needs to be prioritized and solutions identified.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-1
Mitigation Action/Initiative: Reduce Street Flooding – Various Streets in Township

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will reduce hazards caused by health issues, Street Flooding.
Property Protection	1	If water level in the area can be reduces it will result in lower water levels and reduced damage to homes
Cost-Effectiveness	-1	Cost to complete the project would far exceed any financial benefit of project
Technical	-1	The action required to reduce the flood threat may not be feasible in the areas noted above.
Political	1	Yes, both Political and Public Support is very good to perform such a project.
Legal	0	There are environmental concerns that may impact available options.
Fiscal	-1	No funding is available at this time to perform the required mitigation work.
Environmental	-1	This will be difficult barrier to overcome due to the sensitivity of the areas.
Social	1	Public Support for the project would be very favorable
Administrative	1	All work associated with the project should be provided by existing personnel.
Multi-Hazard	1	Will result in less road closures and less damage to residential properties.
Timeline	0	Depending on the scope of work and options selected could take much longer.
Agency Champion	0	Currently no strong support from any internal source
Other Community Objectives	0	This project does not impact any other goals and objectives of the township.
Total	2	
Priority (High/Med/Low)	Low	



Name of Jurisdiction:	LONG HILL TOWNSHIP
Action Number:	LH-2
Mitigation Action/Initiative:	Reduce Flooding Damage and Evacuation of Police Headquarters

Assessing the Risk	
Hazard(s) addressed:	264 Mercer Street, Stirling NJ 07980
Specific problem being mitigated:	During times of heavy rains, Police headquarters building experiences water levels inside the building up to 12 inches. Need to reduce threat and reduce need to evacuate the building.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Install High Volume Sump Pumps in Building
	2. Remove sheet rock walls up to 12" and replace with block
	3. Water proof outside of building to prevent water from coming in.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Items #1 and #2 above have already been completed with Township Funding. Item #3 still needs to be completed. When flooding occurs water comes in doorways and up through cracks in floor.
Action/Project Category	Flooding
Goals/Objectives Met	G-3 – Install water barriers on all doors and seal all first story flooring to reduce or prevent water from entering building.
Applies to existing, future, or not applicable	Currently, if heavy rains occur water will rapidly enter the building. Although sump pumps are installed they alone will not be able to prevent the flooding of the first floor.
Benefits (losses avoided)	Last flood the Police Department lost the use of the building for 3 months while it was being decontaminated, repaired and items damaged repurchased.
Estimated Cost	Medium - \$10,000 to \$100,000
Priority*	High
Plan for Implementation	
Responsible Organization	Township Engineer, Police Chief
Local Planning Mechanism	Work with Township Engineer and potential vendors to develop a solution to preventing water from entering the building.
Potential Funding Sources	Federal, State and County Grants.
Timeline for Completion	Short 1 to 5 Years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/08/2015 Progress on Action/Project: To date three very large sump pumps have been installed. In addition the sheet rock has been removed and replaced with cinder block to a level of 12 inches throughout the first floor.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-2
Mitigation Action/Initiative: Reduce Flooding Damage and Evacuation of Police Headquarters

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Would reduce need to evacuate Headquarters and reduce health risk to employees.
Property Protection	1	Reduce recurring damage to Police Headquarters
Cost-Effectiveness	1	Yes, cost for mitigation work is much less than recurring damages.
Technical	1	Yes, the technology exists to reduce the amount of water entering building.
Political	0	Financial restraints are the only barrier to this project.
Legal	1	There are no legal or other considerations that could prevent this project from moving forward.
Fiscal	-1	No funding is available would require financial support from grant or other resource.
Environmental	1	Although the building is located in a flood plain there would be no impact on environment.
Social	1	Public would support the project if funding were available.
Administrative	1	Jurisdiction does have the personnel and administrative capabilities to implement the project.
Multi-Hazard	0	There are no multi hazard at this location
Timeline	1	The project can be completed within one year.
Agency Champion	1	Police Chief would be the advocate to support the project.
Other Community Objectives	0	This project does not advance any other projects.
Total	9	
Priority (High/Med/Low)	High	



Name of Jurisdiction:	LONG HILL TOWNSHIP
Action Number:	LH-3
Mitigation Action/Initiative:	Elevation of Three Flood Prone Properties on Railroad and Magnolia Avenues, Stirling, NJ.

Assessing the Risk	
Hazard(s) addressed:	Railroad Ave and Magnolia Ave, Stirling NJ 07980
Specific problem being mitigated:	Due to repeated flooding in this area the home owners elected to stay have their homes elevated rather than to sell and demolish.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Identify feasibility of elevating structure and height required
	2. Obtain funding and vendor to complete elevation.
	3. This would be home owner responsibility
Action/Project Intended for Implementation	
Description of Selected Action/Project	Homes would have to have foundations elevated and modified to a flow through concept with all utilities elevated above flood level.
Action/Project Category	G-3 Collecting Data to assist in developing solutions.
Goals/Objectives Met	Elevate home to level above flood stage, prevent future flooding damage.
Applies to existing, future, or not applicable	Flooding will continue to be a problem in these areas and unless mitigation work is completed future losses will be likely.
Benefits (losses avoided)	Project will reduce losses due to damage caused by flooded basement and reduce health risk to home owner and family.
Estimated Cost	Medium - \$10,000 to \$100,000
Priority*	0 – Neutral
Plan for Implementation	
Responsible Organization	Home Owner/Township Engineer/Construction Official
Local Planning Mechanism	Home Owner to submit elevation plans for approval.
Potential Funding Sources	Federal/State Grants
Timeline for Completion	Unknown
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/08/2015 Progress on Action/Project: Waiting to hear from Homeowner and proposed options.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction:	LONG HILL TOWNSHIP
Action Number:	LH-3
Mitigation Action/Initiative:	Elevation of Three Flood Prone Properties on Railroad and Magnolia Avenues, Stirling, NJ.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Elevation will reduce health risk to the owners
Property Protection	1	Elevation will reduce future structure damage by elevation structure.
Cost-Effectiveness	1	Repetitive damages exceeds the cost of elevation.
Technical	1	Yes, elevation is feasible and would resolve the problem for years to come.
Political	0	General public would be neutral on elevation efforts , no impact on public
Legal	0	The action would be authorized by the owner of the property.
Fiscal	-1	Funds are not available, would require financial support from grants.
Environmental	0	No impact on the environment, would only reduce damage to structure.
Social	0	Project would not have any impact on segments of the community.
Administrative	1	Yes, all permits and inspections can be handled by local personnel.
Multi-Hazard	0	No multi-hazard is associated with the elevation process.
Timeline	1	Once funding is secured the project could be completed within 12 months.
Agency Champion	0	These structures are owned privately and would not have a champion.
Other Community Objectives	0	The elevation process is not part of the overall plan to remove structures from persistent flooding.
Total	5	
Priority (High/Med/Low)	Medium	



Name of Jurisdiction:	LONG HILL TOWNSHIP
Action Number:	LH-4
Mitigation Action/Initiative:	Acquisition of Repetitive Loss Properties Cedar & Laurel Avenues Stirling, NJ

Assessing the Risk	
Hazard(s) addressed:	134 Cedar Ave, and 126 Laurel Ave, Stirling NJ 07980
Specific problem being mitigated:	Homes are located near Passaic River which floods frequently. Homes experience repetitive flooding and subsequent losses.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Purchase Homes using Grant and Local Funding,
	2. Remove Structures and Pavement
	3. Restore site to natural state
Action/Project Intended for Implementation	
Description of Selected Action/Project	Using combined funding from Grants and Local Open Space Funding purchase above homes and demolish all structures and restore property to natural state. Homeowner agreed to terms and buyout option.
Action/Project Category	Obtain Appraisal, price agreement and signed contract. Obtain contract and perform structure removal.
Goals/Objectives Met	To date contract was signed for both structures, in process of securing contractor and performing removal
Applies to existing, future, or not applicable	Work on this project is ongoing and will extend into the future.
Benefits (losses avoided)	With structures removed will no longer be subject to structural damage and health risks to owners.
Estimated Cost	High – greater than \$100,000.00
Priority*	1-Highly Effective and Feasible
Plan for Implementation	
Responsible Organization	Township Engineer and Township Administrator
Local Planning Mechanism	Township Administrator with approval from Township Committee will obtain a contractor to perform all of the demolition work.
Potential Funding Sources	Federal, State and Local Funding
Timeline for Completion	2016
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/08/2015 Progress on Action/Project: Project is on schedule, final phase will be to remove the structures and restore site to normal.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-4
Mitigation Action/Initiative: Acquisition of Repetitive Loss Properties Cedar & Laurel Avenues Stirling, NJ

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Homes will be purchased and knocked down no longer causing any threat.
Property Protection	1	Structure will no longer be present and can no longer have reportable damage.
Cost-Effectiveness	-1	Cost to purchase homes probable exceeds all past and future damage claims.
Technical	1	Plan is very feasible and will serve as a long term solution.
Political	0	There is little public support either way on this effort, greatly benefits owner
Legal	1	All agencies, State/County and Municipal have authority to support the project
Fiscal	1	All money for project has been obtained and ready for purchase
Environmental	1	This project would be a huge benefit for the economy
Social	0	Project will have no ill effect on any other projects or efforts in the township
Administrative	1	Yes, all related requirements of this project can be handled internally.
Multi-Hazard	0	Project has no effect on multi hazard open projects in the township
Timeline	1	Project can be completed in 12 months from date contract signed.
Agency Champion	0	No local champion, township doing whatever it can to assist res flooded homes
Other Community Objectives	0	Project does not have any impact on any other project in Township
Total	7	
Priority (High/Med/Low)	High	



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-5
Mitigation Action/Initiative: Acquisition/Elevation of Properties on Mercer St and Passaic Ave.

Assessing the Risk	
Hazard(s) addressed:	Mercer St (323,329,335,339,344) None on Passaic Ave currently.
Specific problem being mitigated:	Homes are in area that frequently floods causing significant damage to home contents and some structural damage. Unable to prevent future flooding.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Elevation of structure above flood stage
	2. Barrier protection around structure
	3. Acquisition and demolition of all structures on property.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Acquisition of all structures was selected by homeowner as best option. This option would permanently resolve flooding issue.
Action/Project Category	Structure and Infrastructure Project (SIP)
Goals/Objectives Met	G-4
Applies to existing, future, or not applicable	Future losses
Benefits (losses avoided)	With structures removed from flood area future losses of property and increased health risks would be avoided
Estimated Cost	High > \$100,000.00
Priority*	High
Plan for Implementation	
Responsible Organization	Long Hill Township Administration and Engineering Departments
Local Planning Mechanism	Identify homes having repetitive losses negotiate with homeowner to determine agreeable cost, secure funding and permits, obtain contractor and perform removal.
Potential Funding Sources	State, County and Local funding obtained.
Timeline for Completion	Short < 5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/12/2015 Progress on Action/Project: All of above homes home owners listed have agreed to sell, funding has been secured, permits have been issued and currently in process of obtaining contractor.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-5
Mitigation Action/Initiative: Acquisition/Elevation of Properties on Mercer St and Passaic Ave.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	By removing all structures from site prevents any future losses.
Property Protection	1	Acquisition and demolition of homes will eliminate any future losses.
Cost-Effectiveness	-1	Cost to purchase and remove structures exceeds repetitive losses to date.
Technical	1	Plan is very feasible, and will accomplish main goal of eliminating future losses.
Political	0	No political pressure one way or the other, overall effort to support the needs of our residents who suffer from repetitive losses to their homes.
Legal	1	State, County and Municipal Governments have the right to implement the action.
Fiscal	1	All financial support for this program are available through grants and local funding.
Environmental	1	Project would actually be a great benefit to the environment by removing structures that can harm the environment.
Social	1	Project will not adversely affect any segment of the population.
Administrative	1	Jurisdiction does have adequate personnel to implement and complete the project.
Multi-Hazard	0	Project would only remove the threat of repetitive losses to the existing structure.
Timeline	1	Project can be completed in less than 5 years.
Agency Champion	0	This purchases are for the benefit of the homeowner and does not require support for a unique champion.
Other Community Objectives	0	Project does not advance any other local objectives other than reducing the threat of future losses due to flooding.
Total	8	
Priority (High/Med/Low)	High	



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-6
Mitigation Action/Initiative: Acquisition/Elevation of 65 Madison St.

Assessing the Risk	
Hazard(s) addressed:	65 Madison St. Gillette, NJ 07933
Specific problem being mitigated:	Home frequently floods causing significant damage to home contents and some structural damage. Unable to prevent future flooding.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Elevation of structure above flood stage
	2. Barrier protection around structure
	3. Acquisition and demolition of all structures on property.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Acquisition of all structures was selected by homeowner as best option. This option would permanently resolve flooding issue.
Action/Project Category	Structure and Infrastructure Project (SIP)
Goals/Objectives Met	G-4
Applies to existing, future, or not applicable	Future losses
Benefits (losses avoided)	With structure removed from flood area future losses of property and increased health risks would be avoided
Estimated Cost	High > \$100,000.00
Priority*	High
Plan for Implementation	
Responsible Organization	Long Hill Township Administration and Engineering Departments
Local Planning Mechanism	Met with home owner, agreed on selling price, obtain funding and permits. Next phase of project will be issue Purchase Order to perform demolition work and obtain a contractor to perform work.
Potential Funding Sources	State, County and Local funding obtained.
Timeline for Completion	Short < 5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/13/2015 Current status waiting for final approval to begin actual demolition work and remove all structures on property.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-6
Mitigation Action/Initiative: Acquisition/Elevation of 65 Madison St.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	By removing all structures from site prevents any future losses.
Property Protection	1	Acquisition and demolition of homes will eliminate any future losses.
Cost-Effectiveness	-1	Cost to purchase and remove structures exceeds repetitive losses to date.
Technical	1	Plan is very feasible, and will accomplish main goal of eliminating future losses.
Political	0	No political pressure one way or the other, overall effort to support the needs of our residents who suffer from repetitive losses to their homes.
Legal	1	State, County and Municipal Governments have the right to implement the action.
Fiscal	1	All financial support for this program are available through grants and local funding.
Environmental	1	Project would actually be a great benefit to the environment by removing structures that can harm the environment.
Social	1	Project will not adversely affect any segment of the population.
Administrative	1	Jurisdiction does have adequate personnel to implement and complete the project.
Multi-Hazard	0	Project would only remove the threat of repetitive losses to the existing structure.
Timeline	1	Project can be completed in less than 5 years.
Agency Champion	0	This purchase is for the benefit of the homeowner and does not require support for a unique champion.
Other Community Objectives	0	Project does not advance any other local objectives other than reducing the threat of future losses due to flooding.
Total	8	
Priority (High/Med/Low)	High	



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-8
Mitigation Action/Initiative: Acquisition/Elevation of 1297 and 1336 Valley Rd, Stirling NJ 07980.

Assessing the Risk	
Hazard(s) addressed:	1297 and 1336 Valley Road Stirling, NJ – Repetitive Flooding
Specific problem being mitigated:	Homes frequently floods causing significant damage to home contents and some structural damage. Unable to prevent future flooding.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Elevation of structure above flood stage 2. Barrier protection around structure 3. Acquisition and demolition of all structures on property.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Acquisition of all structures was selected by homeowner as best option. This option would permanently resolve flooding issue.
Action/Project Category	Structure and Infrastructure Project (SIP)
Goals/Objectives Met	G-4
Applies to existing, future, or not applicable	Future losses
Benefits (losses avoided)	With structure removed from flood area future losses of property and increased health risks would be avoided
Estimated Cost	High > \$100,000.00
Priority*	High
Plan for Implementation	
Responsible Organization	Long Hill Township Administration and Engineering Departments
Local Planning Mechanism	Homeowners agreed to pursue option of Acquisition. Homes and structures were appraised, Contracts considered and discussed. At this time homeowners have not committed to Acquisition. Will continue to discuss option with homeowners.
Potential Funding Sources	State, County and Local funding obtained.
Timeline for Completion	Short < 5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/13/2015 Everything is ready to go should the homeowners accept the funding and process. Current status waiting for final approval to begin actual demolition work and remove all structures on property.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction: LONG HILL TOWNSHIP
Action Number: LH-8
Mitigation Action/Initiative: Acquisition/Elevation of 1297 and 1336 Valley Rd, Stirling NJ 07980.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	By removing all structures from site prevents any future losses.
Property Protection	1	Acquisition and demolition of homes will eliminate any future losses.
Cost-Effectiveness	-1	Cost to purchase and remove structures exceeds repetitive losses to date.
Technical	1	Plan is very feasible, and will accomplish main goal of eliminating future losses.
Political	0	No political pressure one way or the other, overall effort to support the needs of our residents who suffer from repetitive losses to their homes.
Legal	1	State, County and Municipal Governments have the right to implement the action.
Fiscal	1	All financial support for this program are available through grants and local funding.
Environmental	1	Project would actually be a great benefit to the environment by removing structures that can harm the environment.
Social	1	Project will not adversely affect any segment of the population.
Administrative	1	Jurisdiction does have adequate personnel to implement and complete the project.
Multi-Hazard	0	Project would only remove the threat of repetitive losses to the existing structure.
Timeline	1	Project can be completed in less than 5 years.
Agency Champion	0	This purchase is for the benefit of the homeowner and does not require support for a unique champion.
Other Community Objectives	0	Project does not advance any other local objectives other than reducing the threat of future losses due to flooding.
Total	8	
Priority (High/Med/Low)	High	



Name of Jurisdiction:	LONG HILL TOWNSHIP
Action Number:	LH-9
Mitigation Action/Initiative:	Acquisition/Elevation of Property at 168 Bungalow Terr. Millington, NJ 07946

Assessing the Risk	
Hazard(s) addressed:	168 Bungalow Terr. Millington NJ – Repetitive Flooding.
Specific problem being mitigated:	Home frequently floods causing significant damage to home contents and some structural damage. Unable to prevent future flooding.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Elevation of structure above flood stage
	2. Barrier protection around structure
	3. Acquisition and demolition of all structures on property.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Acquisition of all structures was selected by homeowner as best option. This option would permanently resolve flooding issue.
Action/Project Category	Structure and Infrastructure Project (SIP)
Goals/Objectives Met	G-4
Applies to existing, future, or not applicable	Future losses
Benefits (losses avoided)	With structure removed from flood area future losses of property and increased health risks would be avoided
Estimated Cost	High > \$100,000.00
Priority*	High
Plan for Implementation	
Responsible Organization	Long Hill Township Administration and Engineering Departments
Local Planning Mechanism	Homeowner agreed to pursue option of Acquisition. Homes and structures were appraised, Contracts considered and discussed. Homeowner has agreed to acquisition option.
Potential Funding Sources	State, County and Local funding obtained.
Timeline for Completion	Short < 5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 03/13/2015 Everything is ready to go. Funding has been secured, permits obtained, currently in process of obtaining contractor to remove structure.

* Refer to results of Prioritization (page 2)



Name of Jurisdiction:	LONG HILL TOWNSHIP
Action Number:	LH-9
Mitigation Action/Initiative:	Acquisition/Elevation of Property at 168 Bungalow Terr. Millington, NJ 07946

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	By removing all structures from site prevents any future losses.
Property Protection	1	Acquisition and demolition of homes will eliminate any future losses, and reduce health risks.
Cost-Effectiveness	-1	Cost to purchase and remove structures exceeds repetitive losses to date.
Technical	1	Plan is very feasible, and will accomplish main goal of eliminating future losses.
Political	0	No political pressure one way or the other, overall effort to support the needs of our residents who suffer from repetitive losses to their homes.
Legal	1	State, County and Municipal Governments have the right to implement the action.
Fiscal	1	All financial support for this program are available through grants and local funding.
Environmental	1	Project would actually be a great benefit to the environment by removing structures that can harm the environment.
Social	1	Project will not adversely affect any segment of the population.
Administrative	1	Jurisdiction does have adequate personnel to implement and complete the project.
Multi-Hazard	0	Project would only remove the threat of repetitive losses to the existing structure.
Timeline	1	Project can be completed in less than 5 years.
Agency Champion	0	The purchase is for the benefit of the homeowner and does not require support for a unique champion.
Other Community Objectives	0	Project does not advance any other local objectives other than reducing the threat of future losses due to flooding.
Total	8	
Priority (High/Med/Low)	High	